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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/037,297	12/21/2001	Tao Wu	05288.00021	4505

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BANNER & WITCOFF
1001 G STREET N W
SUITE 1100
WASHINGTON, DC 20001

EXAMINER	
COFFY, EMMANUEL	
ART UNIT	**PAPER NUMBER**
2157	

DATE MAILED: 02/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/037,297	WU ET AL.	
	Examiner	Art Unit	
	Emmanuel Coffy	2157	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 December 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Response to Amendment

1. This action is responsive to the amendments filed on 5 December 2005. Claims 1-23 are pending. Claims 1-23 are directed to a method and system for a "Cache on Demand."

Response to Arguments

2. In view of the arguments asserted by applicant with regards to the appropriateness of the finality of the last Office Action, PROSECUTION IS HEREBY REOPENED. A new rejection is set forth below.

3. Applicant's arguments have been considered but are not persuasive; furthermore said arguments are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1-2, 4 and 22 rejected under 35 U.S.C. §103(a) as being unpatentable over Starnes et al. (US 6,578,073.) in view of Chong et al. (US 6,397,267).

Starnes substantially teaches the invention as claimed including improved techniques for rapid and efficient delivery of objects from a network (e.g., the Internet) to users. (See abstract).

Claim 1:

Starnes substantially teaches a method of transmitting requests and content at a cache computer, wherein a first computer device and a second computer device are coupled to the cache computer and the first computer device requests content from the second computer device; the method comprising the steps of: (See Fig. 1)

(a) receiving a cache request from the second computer device; and (See col. 7, lines 15-20.) Starnes does not explicitly teach non-requested data. However, Chong unequivocally discloses:

(b) receiving at the cache computer non-requested content from the second computer device, wherein the non-requested content is content other than content requested by the first computer device. See col. 7, lines 27-35. Hence, it would have been obvious at the time of the invention for an artisan of ordinary skill in the art to combine the invention taught by Starnes with storing non-requested data as disclosed by Chong, Jr. because in such a system an increase in the data transfer bandwidth may not require a similar increase in processing power.

Claim 2:

Starnes substantially teaches the method of claim 1, further including:

(c) transmitting a cache invitation to the second computer device. (See col. 7, lines 32-47.)

Claim 4:

Starnes substantially teaches the method of claim 1, wherein (a) comprises:

(d) receiving a request for cache memory space from the second computer. (See

col. 12, lines 29-44.)

Claim 22:

Starnes substantially teaches a computer-readable medium containing computer-executable instructions for causing a cache computer coupled to a first computer device and a second computer device to perform the steps comprising: (See Fig.1) (Software is an inherent part of a computer.)

(a) receiving a cache request from the second computer device; and (See col. 7, lines 15-20.) Starnes does not explicitly teach non-requested data. However, Chong unequivocally discloses:

(b) receiving at the cache computer non-requested content from the second computer device, wherein the non-requested content is content other than content requested by the first computer device. See col. 7, lines 27-35. Hence, it would have been obvious at the time of the invention for an artisan of ordinary skill in the art to combine the invention taught by Starnes with storing non-requested data as disclosed by Chong, Jr. because in such a system an increase in the data transfer bandwidth may not require a similar increase in processing power.

6. Claim 3 is rejected under 35 U.S.C. §103(a) as being unpatentable over Starnes et al. (US 6,578,073) in view of Chong et al. (US 6,397,267) in further view of Cieslak et al. (US 6,832,252.)

Claim 3:

Starnes and Chong substantially teach the method of claim 2 as discussed above. Starnes and Chong Jr. do not expressly disclose "wherein the cache invitation is

located within a header of a request for content."

However, Cieslak unambiguously teach a 20-byte header being added to a data packet. Hence, it would have been obvious at the time of the invention for an artisan of ordinary skill in the art to combine the inventions of Starnes and Chong, Jr. with adding a header to the request as articulated by Cieslak because routing and execution of the request would be better achieved.

7. Claims 5-9 are rejected under 35 U.S.C. §103(a) as being unpatentable over Starnes et al. (US 6,578,073) in view of Chong et al. (US 6,397,267) in further view of Einarson et al. (US 6,704,781.)

Claim 5:

Starnes and Chong substantially teach the method of claim 4, wherein the request includes terms that have previously been agreed upon by the cache computer server and the second computer device.

Neither Starnes nor Chong expressly discloses previously "agreed" upon terms. However, Einarson discloses devices that are designed to respond only to certain terms. The Examiner notes that a device, which is an inanimate object, cannot agree to anything but rather is designed to respond in a specific way.

Hence, it would have been obvious at the time of the invention for an artisan of ordinary skill in the art to combine the inventions of Starnes and Chong, Jr. with devices configured to respond only to certain terms which would avoid any dispute by eliminating ambiguities.

Claim 6:

Starnes and Chong substantially teach the features of the method of claim 4 as discussed above. Neither Starnes nor Chong expressly discloses "wherein the request comprise a fee for use of the cache memory space."

However, Einarson discloses a fee for the use of the cache at col. 2, lines 36-38.

Hence, it would have been obvious at the time of the invention for an artisan of ordinary skill in the art to combine the inventions of Starnes and Chong, Jr. with a fee for the use of the cache as taught by Einarson because caching services would readily be charged.

Claim 7:

Starnes and Chong substantially teach the features of the method of claim 6 as discussed above. Neither Starnes nor Chong expressly discloses "wherein the fee is a fee that will be paid by the second computer device."

However, Einarson discloses such a fee that will be paid by the second computer device at col. 4, lines 30-42 and col. 6, lines 34-39.

Hence, it would have been obvious at the time of the invention for an artisan of ordinary skill in the art to combine the inventions of Starnes and Chong, Jr. with a fee that will be paid by the server as taught by Einarson because the server would make the request.

Claim 8:

Starnes and Chong substantially teach the features of the method of claim 4 as discussed above. Starnes does not expressly disclose "wherein the request further

includes a requested amount of cache memory space."

However, Einarson discloses requested amount of storage at col. 3, line 4.

Hence, it would have been obvious at the time of the invention for an artisan of ordinary skill in the art to combine the inventions taught by Starnes and Chong Jr. with requested amount of storage as taught by Einarson because memory allocation would be easier when the amount of storage is known and charges are readily computed.

Claim 9:

Starnes and Chong substantially teach the features of the method of claim 4 as discussed above. Neither Starnes nor Chong Jr. expressly discloses "wherein the non-requested content comprises objects of a web page."

However, Einarson discloses requested web page objects at col. 2, line 66 –col. 3, line 22. Hence, it would have been obvious at the time of the invention for an artisan of ordinary skill in the art to combine the inventions taught by Starnes and Chong Jr. with web page objects as taught by Einarson because sites' contents may be cached by providing the sites URL.

8. Claims 10-11 are rejected under 35 U.S.C. §103(a) as being unpatentable over Starnes et al. (US 6,578,073) in view of Chong et al. (US 6,397,267) in further view of Aviani et al. (US 5,950,205.)

Claim 10:

Starnes and Chong Jr. substantially teach the features of the method of claim 1 as discussed above. Neither Starnes nor Chong Jr. expressly discloses "further including: (c) receiving at the cache computer the identification of non-requested

content." However, Aviani discloses receiving identification of non-requested content at col. 5, line 51–56.

Hence, it would have been obvious at the time of the invention for an artisan of ordinary skill in the art to combine the inventions taught by Starnes and Chong Jr. with receiving identification of non-requested content as taught by Aviani because the content would best be identified when the memory address is known.

Claim 11:

Starnes and Chong Jr. substantially teach the features of the method of claim 10 as discussed above. Neither Starnes nor Chong Jr. expressly discloses "wherein the identification of non-requested content comprises memory addresses of non-requested content."

However, Aviani discloses memory addresses of non-requested content at col. 5, line 51–56. Hence, it would have been obvious at the time of the invention for an artisan of ordinary skill in the art to combine the inventions taught by Starnes and Chong Jr. with receiving identification of non-requested content as taught by Aviani because the content would best be identified when the memory address is known.

9. Claim 12 is rejected under 35 U.S.C. §103(a) as being unpatentable over Starnes et al. (US 6,578,073) in view of Chong et al. (US 6,397,267) in further view of Aviani et al. (US 5,950,205) and in further view of Cieslak et al. (US 6,832,252.)

Claim 12:

Starnes, Chong Jr. and Aviani substantially teach the features of the method of claim 10 as discussed above. Neither Starnes, Chong Jr., nor Aviani expressly disclose

"in response to (c) further including: (e) requesting the non-requested content from the second computer."

However, Cieslak unambiguously teach that any computer can be the cache requester at col. 6, lines 5-11. Hence, it would have been obvious at the time of the invention for an artisan of ordinary skill in the art to combine the inventions taught by Starnes, Chong Jr. and Aviani with the request as articulated by Cieslak because the system would be more flexible by allowing any computer to make the request.

10. Claims 13-20 are rejected under 35 U.S.C. §103(a) as being unpatentable over Einarson et al. (US 6, 704,781) in view of Chong, Jr. (US 6,397,267.)

Einarson teaches the invention substantially as claimed including a method of providing caching services to a server in a network. (See abstract)

Claim 13:

Einarson substantially teaches the method of transmitting content from a first computer device to a second computer device, wherein the first computer device and the second computer device are coupled to a cache computer device, the method comprising the steps of:

(a) receiving from the cache computer device, a request for content; (See col. 2, lines 9-22.)

(b) transmitting to the cache computer device the requested content; (See col. 2, lines 9-22.)

(c) transmitting to the cache computer device a request for use of a cache memory; and (See col. 2, line 67-col. 3, line 5.)

(d) after accepting terms for the use of the cache memory, transmitting to the cache computer device non-requested content, wherein the non-requested is content other than content requested by the cache computer device. (See col. 6, line 34-38) (sending an authorization is equated to accepting the terms.)

Einarson does not explicitly disclose transmitting to the cache computer device non-requested content. However, Chong teaches the concept of transmitting non-requested content at col. 7, lines 27-34.

Hence, it would have been obvious at the time of the invention for an artisan of ordinary skill in the art to combine the invention taught by Einarson with non-requested content as articulated by Chong, Jr. in anticipation of future read request.

Claim 14:

Einarson substantially teaches the method of claim 13. Einarson does not explicitly disclose an access router coupled to an access network. However, as shown in Fig. 4A Chong discloses a switch coupled to the Internet. The switch acts as a router. See col. 12, lines 4-19.

Hence, it would have been obvious at the time of the invention for an artisan of ordinary skill in the art to combine the invention taught by Einarson with the router as articulated by Chong, Jr. because this arrangement would improve reliability for data storage and retrieval by reducing latency in data transfers.

Claim 15:

Einarson substantially teaches the method of claim 13, wherein the request in (c) comprises a proposed fee for use of the cache memory. (See col. 2, lines 35-41.)

Claim 17:

Einarson teaches the method of claim 13, wherein the request in (c) comprises a request for cache memory space.(See col. 4, lines 8-10 and col. 3, lines 3-6.)

Claim 18:

Einarson teaches the method of claim 13, wherein the request in step (c) comprises time duration. (See col. 3, lines 1-5.)

Claim 19:

Einarson teaches the method of claim 13, wherein the request in step (c) comprises a proposed fee. (See col. 2, lines 35-41.)

Claim 20:

Einarson teaches the method of claim 13, further including the steps of: (e) receiving a denial in response to the request for the use of the cache memory; (f) receiving proposed terms for use of the cache memory; and (g) transmitting to the first computer device an approval of the proposed terms for use of the cache memory. (See col. 4, lines 22-42.)

11. Claim 16 is rejected under 35 U.S.C. §103(a) as being unpatentable over Einarson et al. (US 6, 704,781) in view of Chong, Jr. (US 6,397,267) in further view of Krishnamurthy et al. (US 6,578,113.)

Claim 16:

Einarson and Chong Jr. substantially teach the method of claim 13 as discussed above. Neither Einarson nor Chong Jr. discloses the steps of: (e) determining when the first computer device updates the non-requested content; and (f) transmitting updated

non-requested content to the second computer device when the first computer device updates the non-requested content.

However Krishnamurthy teaches (e) determining when the first computer device updates the non-requested content; and (f) transmitting updated non-requested content to the second computer device when the first computer device updates the non-requested content. (See col. 5, lines 43-50).

Hence, it would have been obvious at the time of the invention for an artisan of ordinary skill in the art to combine the inventions taught by Einarson and Chong Jr. with content updating as disclosed by Krishnamurthy because such system would greatly improve QoS by providing fresh content as soon as it becomes availble.

12. Claim 21 is rejected under 35 U.S.C. §103(a) as being unpatentable over Einarson et al. (US 6, 704,781) in view of Chong, Jr. (US 6,397,267) in further view of Cieslak et al. (US 6,832,252.)

Einarson and Chong Jr. substantially teach the method of claim 13, wherein the request (c) is located within a header of the requested content.

Neither Einarson nor Chong Jr. expressly discloses the limitations of above claim. However, Cieslak unambiguously teach a 20-byte header being added to a data packet. Hence, it would have been obvious at the time of the invention for an artisan of ordinary skill in the art to combine the inventions taught by Einarson and Chong Jr. with adding a header to the request as articulated by Cieslak because routing and execution of the request is better achieved.

13. Claim 23 is rejected under 35 U.S.C. §103(a) as being unpatentable over Einarson et al. (US 6, 704,781) in view of Chong, Jr. (US 6,397,267.)

Claim 23:

Einarson substantially teaches an access router coupled to a local computer and a website, the access router including a cache module configured to perform the steps comprising: (See Fig. 2)

(a) receiving a cache request from the website; and (See col. 4, line 66 –col. 5, line 5.)

(b) receiving non-requested content from the website, wherein the non-requested is content other than content requested by the local computer.

Einarson does not explicitly disclose receiving non-requested content from the website, wherein the non-requested is content other than content requested by the local computer. However, Chong teaches the concept of transmitting non-requested content at col. 7, lines 27-34.

Hence, it would have been obvious at the time of the invention for an artisan of ordinary skill in the art to combine the invention taught by Einarson with non-requested content as articulated by Chong, Jr. because the efficacy would be improved by the process of anticipation of future read request.

CONCLUSION

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Emmanuel Coffy whose telephone number is (571) 272-

3997. The examiner can normally be reached on 8:30 - 5:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on (571) 272-3997. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Emmanuel Coffy
Patent Examiner
Art Unit 2157

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EC
Feb 2, 2006

ARIO ETIENNE
PRIMARY EXAMINER